

King County Tabula: Task 3-Modify and Expand Cost Curves

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This memorandum pertains to Work Order #9 of King County Wastewater Treatment Division for revisions and updates to their "Tabula" Cost Estimating Program. Specifically, this memo discusses Task 3, to Modify and expand Tabula's cost estimating capabilities to cover a wider range of capital projects.

Currently Tabula calculates pump stations from a range of 5 million gallons per day (mgd) to 80 mgd. The data to generate the current cost curves comes from five pumps station ranging from 19 to 36 mgd. When King County initially met with CH2M HILL about updating Tabula it expressed its desire to expand the downward range of Tabula's pump station curves. In Task 1, which was to update the unit costs which are now used in Tabula, CH2M HILL added 5 new pump stations to adjust the cost curve calculation. Four of these pump stations ranged from 0.3 mgd to 10 mgd. By adding these pump stations into the curve calculation we recommend expanding the pump station capacity from 0.5 mgd to 80 mgd. It should be noted that the largest pump station used to generate the curve was 36 mgd, thus for pump stations over 40 mgd we recommend that additional care be used when evaluating these pump station costs.